

Abstract of the Disclosure

In a write process through channels Ch1, Ch2, and Ch3, the deadline of each channel is set based on the transfer rate variable by the ratio of dummy packets to valid packets, and deadline information is written with write data on a disk. In a read process through a channel Ch4, the deadline is set according to the deadline information read with read data from the disk. Then, data is sequentially processed in order from the data having the earliest deadline. Considering the difference in transfer rate between outer and inner zones on the disk, a write zone is determined. When data is simultaneously recorded through the channels Ch1 and Ch2 on an ASMO in a groove-land record system, the data is sequentially recorded through the channel Ch1 on the groove and through the channel Ch2 on the land.